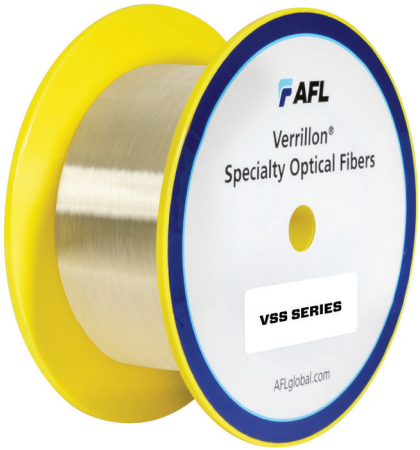

Verrillon®
VSS200 Series Coupler Fiber

Verrillon VSS200 Coupler Fiber products consist of a family of single-mode fibers designed for fused devices manufacturing such as couplers, splitters, WDMs, tap couplers and add/drop filters for communications and sensing applications. These fibers exhibit exceptionally low optical loss, low excess loss, low insertion loss, as well as low bend-loss due to their high numerical apertures. These coupler fibers are available in all Verrillon coatings and coating combinations and in numerical apertures from 0.13 to 0.20.

Features

- Exhibits lower excess loss in couplers and splitters
- High numerical aperture design for low bend loss
- Ideal for 980nm pumping of EDFAs
- Fully qualified to Telcordia GR-20
- Available Numerical Apertures: 0.20, 0.16, 0.13 and others.

Applications

- Communications Networks
- Optical fused couplers and splitters
- Wavelength Division Multiplexing devices (WDMs)
- Tap couplers
- Optical Add/Drop filters
- Fiber pigtails
- Erbium-Doped Fiber Amplifiers (EDFAs)

Specifications

PART NO.	CF-2-125-0	CF-4-125-20-1	CF-5-125-2
Description	980 nm Acrylate coated, Coupler Fiber, 0.16 NA, 200 kpsi	980 nm Acrylate Coated, Coupler Fiber, 0.20 NA, 200 kpsi	1310/1550 nm Acrylate Coated, Coupler Fiber, 0.13 NA, 200 kpsi
PARAMETER	**VALUE**		
Material			
Coating	Dual UV Acrylate	Dual UV Acrylate	Dual UV Acrylate
Geometry			
Clad Diameter (µm)	125 ± 1	125 ± 1	125 ± 1
Clad Non-Circularity (%)	—	≤ 2	—
Core/Clad Offset (µm)	≤ 0.3	≤ 0.3	≤ 0.5
Coat Diameter (µm)	245 ± 15	245 ± 15	245 ± 15
Optical			
NA (nominal)	0.16	0.20	0.13
Attenuation @ 980 nm (dB/m)	≤ 3.0	≤ 3.5	—
Attenuation@ 1310 nm (dB/km)	—	—	≤ 0.5
Attenuation@ 1550 nm (dB/km)	—	—	≤ 0.5
Cutoff Wavelength (nm)	≤ 960	≤ 960	1250 ±40
Mode Field Diameter[1] @ 980 nm (µm)	5.0 ± 0.3	4.2 ± 0.3	—
Mode Field Diameter[1] @ 1310 nm (µm)	—	—	8.6 ± 0.5
Mode Field Diameter[1] @ 1550 nm (µm)	—	—	9.7 ± 0.5
Bend Loss[2] @ 1310 nm (µm)	—	—	≤ 0.25
Bend Loss[2] @ 1550 nm (µm)	—	—	≤ 0.25
Mechanical			
Tensile Strength (kpsi)	≥ 200	≥ 200	≥ 200
Operating Temperature (°C)	-40 to +85	-40 to +85	-40 to +85

[1] Petermann II Definition

[2] 10 turns of fiber on a 30 mm diameter mandrel